

# Comparisons of Job Characteristics

**Focus Occupation:** [Surveying and Mapping Technicians \(17-3031\)](#)

**Associated Occupation:** [Civil Engineering Technicians \(17-3022\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 77

**Focus Occupation:** Surveying and Mapping Technicians (17-3031)

**Associated Occupation:** Civil Engineering Technicians (17-3022)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Engineering and Technology	5.7	15.6	10.3	<< Extensive education and/or training may be required
Building and Construction	4.0	15.1	6.3	<< Extensive education and/or training may be required
Mathematics	9.2	15.0	15.0	0 Current knowledge level may be sufficient
Design	5.2	14.1	11.8	< Expanded education and/or training may be required
Public Safety and Security	6.9	10.6	6.5	<< Extensive education and/or training may be required
Geography	3.9	9.0	14.5	>> Current knowledge level is likely more than sufficient
Transportation	4.6	8.6	3.8	<< Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 85

**Focus Occupation:** Surveying and Mapping Technicians (17-3031)

**Associated Occupation:** Civil Engineering Technicians (17-3022)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Reading Comprehension	10.7	12.9	11.3	< A higher skill level may be required
Mathematics	6.2	8.7	11.6	>> Skill level is likely more than sufficient
Operations Analysis	5.0	7.9	5.6	<< Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 93			
Focus Occupation: Surveying and Mapping Technicians (17-3031) Associated Occupation: Civil Engineering Technicians (17-3022)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Oral Comprehension	12.5	12.8	11.6	<	Some improvement in abilities may be required
Near Vision	11.1	12.6	13.2	0	Current ability level may be sufficient
Oral Expression	12.4	12.2	11.1	0	Current ability level may be sufficient
Deductive Reasoning	10.6	11.4	11.2	0	Current ability level may be sufficient
Visualization	7.5	11.4	9.2	<	Some improvement in abilities may be required
Written Comprehension	11.0	11.4	11.5	0	Current ability level may be sufficient
Written Expression	9.8	11.4	9.4	<	Some improvement in abilities may be required
Problem Sensitivity	11.1	10.8	11.1	0	Current ability level may be sufficient
Mathematical Reasoning	6.3	10.3	11.2	0	Current ability level may be sufficient
Number Facility	6.3	9.2	9.2	0	Current ability level may be sufficient
Memorization	5.6	6.9	6.6	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 89
<b>Focus Occupation: Surveying and Mapping Technicians (17-3031)</b> <b>Associated Occupation: Civil Engineering Technicians (17-3022)</b>		
Work Activities	Exclusivity of Activity	
Analyze technical data, designs, or preliminary specifications	47	
Communicate technical information	4	
Conduct land surveys	81	
Conduct plant location surveys	87	
Draw maps or charts	69	
Draw prototypes, plans, or maps to scale	57	
Interpret aerial photographs	69	
Operate land or site surveying instruments	80	
Prepare safety reports	60	
Read maps	42	
Read technical drawings	7	
Use computer aided drafting or design software for design, drafting, modeling, or other engineering tasks	58	

Use drafting or mechanical drawing techniques
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Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 75

**Focus Occupation: Surveying and Mapping Technicians (17-3031)**

**Associated Occupation: Civil Engineering Technicians (17-3022)**

Tools and Technologies	Exclusivity
Audio and visual equipment	4
Computer data input devices	2
Computer printers	2
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Forming tools	2
Garden tools	12
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Land surveying instruments	19
Length and thickness and distance measuring instruments	2
Measuring and layout tools	3
Mechanical instruments	14
Meteorological instruments	16
Network applications software	1
Personal communication devices	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.